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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,637	10/22/2003	Erich Georg Eckart Dr.Dr.		4054

7590 09/13/2005

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EXAMINER

PRICE, CARL D

ART UNIT PAPER NUMBER

3749

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,637

Applicant(s)

ECKART DR.DR., ERICH GEORG

Examiner

CARL D. PRICE

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Note in particular applicant has not provided a copy of the Department of Energy 1999 publication discussed on page 2 of the specification. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

The disclosure is objected to because of the following informalities:

The pages of the specification are not numbered.

Appropriate correction is required.

Claim Objections

Claim 6 is objected to because of the following informalities:

- In claim 6, subparagraphs "a)" and "b)", respectively, the term "Tubular" should not be capitalized.

Appropriate correction is required.

Claims 3-4 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only (note: "Module according to claims 1 and 2 ..."). See MPEP § 608.01(n).

Accordingly, the claims 3-4 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims **1-2 and 5-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are vague and indefinite. For example:

- In claim 1, line 1, there is no proper antecedent basis for “its intended use”.
- In claim 1, lines 1-2, it is unclear how the scope of the invention may or may not be affected by the phrase “ – or according to its intended use - “, or what meaning applicant intends for this phrase (see also claim 2 which includes the phrases: “ – but not limited to –“ and “- or any structural patterns that enlarge...”).
- In claim 1, line 5, there is no proper antecedent basis for “the modules”.
- In claim 3, lines 6-7, the phrase “wherein one channel contains encapsulated air, the adjacent channel the water flow” is vague and confusing. Does applicant intend this phrase to state - - wherein one channel contains encapsulated air, **and an** adjacent channel a water flow?
- In claim 3, line 5, there is no proper antecedent basis for “the same depth”.
- In claim 7, it is unclear what element or portions of the previously recited structure includes at least one groove in the shape of a notch. Also note the word “grove” should be - - groove - -.
- Regarding claim 6, the word "means" is preceded by the word(s) "connecting" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 5 and 6: Rejected under 35 U.S.C. 102(b)

Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by US004315497 (VARDEY).

In regard to claims 1, 2, 5 and 6, recitations such as “water” heating module, “for circulating water through a plurality of modules”, “wherein one channel contains encapsulated air”, etc. are deemed to be statements of intended use. A recitation of the intended use of the

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claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In regard to claims **1, 2, 5 and 6, US004315497 (VARDEY)** shows and disclose a thermal water heating module including:

- a water heating module of a substantially planar shape connectable heating unit having a heat absorbing enlarged upper surface (8);
- an evenly deep water leading section (3);
- bottom air insulation (at 2);
- inlets and outlets (5, 6) as connecting elements arranged for circulating water through a plurality of the modules (see column 3, lines 1-8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-9: Rejected under 35 U.S.C. 103(a)

Claims **7-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US004315497 (VARDEY)** in view of **US004178910 (GRAMER et al)**.

US004315497 (VARDEY) shows and discloses the invention substantially as set forth in the claims with possible exception to:

- an O-ring seal groove;
- additional connecting means for connecting and aligning adjacent modules; and
- the module being made of UV stabilized plastic polymer materials.

US004178910 (GRAMER et al) teaches, form the same solar energy collecting module field of endeavor as **US004315497 (VARDEY)**, providing a plurality of solar energy absorbing modules with an O-ring seal and groove (68,70) and additional connecting means (14, 72, 88, 100, etc.) for connecting and aligning adjacent modules.

In regard to claims 7 and 8, for the purpose of providing a suitable fluid tight seal and additional means for connecting and aligning adjacent modules, it would have been obvious to a person having ordinary skill in the art to provide the absorbing modules fluid connections of **US004315497 (VARDEY)** with an O-ring seal and groove as well as alignment and connecting extensions, in view of the teaching of **US004178910 (GRAMER et al)**. In regard to claims 9, Official Notice is taken that it is well known and advantageous to make solar energy collectors from UV stabilized plastic polymer materials in order to minimize the adverse affects of solar UV radiation thereto (see for example US004114597 (ERB)). Thus, in view of that which is well known and for the known purpose, it would have been obvious to a person having ordinary skill in the art to modify the **US004315497 (VARDEY)** module to be made of UV stabilized plastic polymer materials.

Conclusion

See the attached USPTO form 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.

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USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CARL D. PRICE
Primary Examiner
Art Unit 3749

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